

WE CLAIM AS OUR INVENTION

- 1 1) Method of reserving parking spaces within a
- 2 parking area for vehicles through an electronic
- 3 communication network in response to reservation requests
- 4 from requesting parties, comprising the steps of:
- 5 providing a parking area server which is accessible
- 6 for two-way communication with the requesting parties
- 7 through the electronic communication network;
- 8 storing parking space data in a space attribute
- 9 database, identifying each parking space in the parking
- 10 area by a unique space ID, defining one or more parking
- 11 space attributes for each parking space, and in data
- 12 communication with the server for providing parking space
- 13 data to the server;
- 14 monitoring the parking area through parking space
- 15 monitors positioned in the parking area proximate the
- 16 parking spaces, for detecting the presence or absence of
- 17 vehicles in the parking spaces defining a current
- 18 empty/occupied status for each parking space, and
- 19 accessible for server communication for providing the
- 20 empty/occupied status to the server;
- 21 maintaining time-based parking space availability
- 22 data in an availability status database in response to
- 23 reservations from the server and to empty/occupied status
- 24 from the monitors, defining an availability attribute
- 25 schedule for each parking space in the parking area, and
- 26 in data communication with the server for providing
- 27 availability data to the server;
- 28 receiving a reservation request communication from a
- 29 requesting party to the server via the electronic
- 30 communication network, requesting a reservation for a
- 31 parking space in the parking area specifying one or more
- 32 requested attributes;
- 33 determining the availability of parking spaces
- 34 having the requested attributes from the availability

35 data in the availability status database and from the
 36 parking space data in the space attribute database;
 37 rejecting the reservation request from the
 38 requesting party if no parking space having the requested
 39 attributes is available;
 40 accepting the reservation request from the
 41 requesting party if a parking space having the requested
 42 attributes is available; and
 43 reserving the parking space having the requested
 44 attributes for the requesting party using the unique
 45 space ID.

1 2) The method of Claim 1, wherein one of the
 2 requested attributes is starting time of the requested
 3 reservation.

1 3) The method of Claim 1, wherein two of the
 2 requested attributes are starting time and terminating
 3 time of the requested reservation defining a reserved
 4 time slot.

1 4) The method of Claim 3, further comprising after
 2 the reserving step, the additional steps of:
 3 clocking the reserved time slot; and
 4 alerting the requesting party when the time slot is
 5 approaching expiration or has expired.

1 5) The method of Claim 1, wherein the requested
 2 attributes include specified conditions within the
 3 parking area of the reserved parking space.

1 6) The method of Claim 1, wherein one of the
 2 requested attributes is location within the parking area
 3 of the reserved parking space.

1 7) The method of Claim 1, wherein one of the
2 requested attributes is loading and unloading capability
3 of the reserved parking space.

1 8) The method of Claim 1, wherein one of the
2 requested attributes is dimensions of the reserved
3 parking space.

1 9) The method of Claim 1, wherein one of the
2 requested attributes specifies a plurality of the parking
3 spaces.

1 10) The method of Claim 1, wherein one of the
2 parking space attributes is a charge rate attribute.

1 11) The method of Claim 10, further comprising after
2 the determining step and before the reserving step, the
3 additional step of presenting to the requesting party the
4 charge rate attribute for the space having the requested
5 attributes.

1 12) The method of Claim 11, further comprising after
2 the accepting step, the additional step of electronically
3 collecting a fee based on the charge rate for the
4 accepted parking space.

1 13) The method of Claim 1, further comprising after
2 the reserving step, the additional step of notifying the
3 requesting party of the reserved parking space.

1 14) The method of Claim 1, further comprising after
2 the reserving step, the additional step of updating the
3 availability status database as to the now unavailability
4 of the just reserved parking space.

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1 15) The method of Claim 1, wherein the accessible
2 server communication is continuous one-way communication
3 from the monitors to the server.

1 16) The method of Claim 1, wherein the accessible
2 server communication is continuous two-way communication
3 between the monitor to the server.

1 17) The method of Claim 1, further comprising after
2 the receiving step and before the reserving step, the
3 additional step of sending an image of the floor plan of
4 the parking area to the requesting party indicating the
5 available parking spaces.

1 18) The method of Claim 1, further comprising after
2 the rejecting step, the additional steps of:
3 selecting an alternate available parking space; and
4 submitting the alternate available parking space to
5 the requesting party.

1 19) The method of Claim 18, wherein the alternate
2 parking space is a substitute space having substitute
3 attributes based on the requested attributes.

1 20) The method of Claim 18, further comprising the
2 additional step of maintaining a requesting party
3 historical database in data communication with the server
4 for certain requesting parties identified by a unique
5 party ID defining one or more historically requested
6 attributes.

1 21) The method of Claim 20, wherein the alternate
2 parking space is a historical space having attributes
3 based on historically requested attributes.

1 22) The method of Claim 20, further comprising after
 2 the reserving step, the additional step of updating the
 3 historical database with the attributes requested by the
 4 requesting party.

1 23) The method of Claim 18, further comprising after
 2 the alternate submitting step and before the determining
 3 step, the additional step of receiving an alternate
 4 reservation request during the reservation request
 5 communication specifying alternate attributes.